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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,137	03/21/2001	Masaki Mizutani	35.C13584 Div. I	1435

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EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/813,137	Applicant(s) MIZUTANI ET AL.	
	Examiner John L. Goff	Art Unit 1733	

mk-7

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 21 March 2001.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 19-22 and 27-30 is/are pending in the application.

4a) Of the above claim(s) 21,22 and 27-29 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 19,20 and 30 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/333,019.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.

15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> .	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____
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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of existing claims 19 and 20 and new claim 30 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that it would not be a serious burden on the examiner to examine the three species in a single application. This is not found persuasive because the species are mutually exclusive inventions and would be classified in different classes and subclasses. It is further noted that upon the indication of allowable subject matter, rejoinder will be considered.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claim 30 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Sakaguchi et al. (U.S. Patent 6,100,166).

Sakaguchi et al. are directed to a process for producing semiconductor devices including solar cells (Column 1, lines 6-12). Sakaguchi et al. teach a method comprising forming a

separation layer (porous layer) on a substrate (such as silicon) (Figures 11(a)-11 (h) and Column 20, lines 14-16 and 28), forming a semiconductor thin film (p+ or n+ type) on the separation layer (Column 20, lines 29-37), bonding a film onto the thin film using a paste (Column 20, lines 38-39 and Column 21, lines 51-62), exerting force on the film to peel the thin film away from the substrate at the separation layer (Column 20, lines 45-50), and forming an electrode (or an electrode with a n+ or p+ type layer) on a back surface of the thin film thus peeled (Column 20, lines 54-61).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 19 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto et al. (U.S. Patent 5,397,713) in view of Sakaguchi et al.

Hamamoto et al. are directed to a method of producing a thin film solar cell (Column 1, lines 6-11). Hamamoto et al. teach a method comprising forming a separation layer (such as graphite) on a substrate (such as silicon) (Figures 11(a)-11 (k) and Column 2, lines 6-8, and 33-38 and Column 3, lines 18-22 and Column 7, lines 39-42), forming a semiconductor thin film (such as a film having a first semiconductor layer of a first conductivity type (p type) and a semiconductor layer of a second conductivity type (n+ type)) on the separation layer (Column 2, lines 8-15, 39-42, and 51-56 and Column 3, lines 23-26 and 35-39), bonding a film (such as an antireflective film) onto the thin film (Column 2, lines 62-65 and Column 3, lines 39-41 and 45-47), bonding a glass substrate on the film (Column 3, lines 1-6 and 48-20), exerting force on the glass-film-thin film sandwich to peel the thin film away from the substrate at the separation layer (Figures 12(a) and 12(b) and Column 3, lines 53-57 and 60-68 and Column 4, lines 1-2), and forming an electrode (or an electrode with a p+ type layer) on a back surface of the thin film thus peeled (Column 3, lines 6-10 and Column 4, lines 11-14). Hamamoto et al. are silent as to bonding the film to the semiconductor thin film using an adhesive. However, the use of an adhesive paste when bonding a film to a semiconductor thin film is well known in the art as shown above in paragraph 3 by Sakaguchi et al. One of ordinary skill in the art at the time the invention was made reading Hamamoto et al. in view of Sakaguchi et al. would have readily appreciated bonding the film taught by Hamamoto et al. to the thin film using an adhesive paste as suggested by Sakaguchi et al. as only the expected results would be achieved.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto et al. and Sakaguchi et al. as applied above in paragraph 6, and further in view of Cook (U.S. Patent 4,303,463).

Hamamoto et al. and Sakaguchi et al. as applied above teach all of the limitations in claim 20 except for a teaching on using a curved thin film support member to carry out the peeling of the thin film. It is noted Hamamoto et al. suggest using a glass substrate support member and a wedge to peel the thin film from the substrate (Figures 12(a) and 12(b)). However, the use of a curved thin film support member is known in the art as shown by Cook. One of ordinary skill in the art at the time the invention was made reading Hamamoto et al. in view of Cook would have readily appreciated performing the peeling step taught by Hamamoto et al. using a curved thin film support member as suggested by Cook as only the expected results would be achieved.

Cook is directed to a method for peeling thin films from reusable substrates using a heated, curved thin film support member (Column 1, lines 5-10 and Column 2, lines 47-50). Cook teaches a substrate with a thin film layer (Figure 1 and Column 2, lines 60-61). Cook teaches peeling the thin film from the substrate using a heated, curved thin film support member (Figure 2 and Column 3, lines 66-67 and Column 4, lines 1-3 and 24-30).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

John L. Goff

John L. Goff
October 28, 2002

Michael M. Bell
Michael M. Bell
Supervisory Patent Examiner
Technology Center 1700